Role of Artificial Intelligence to transform customer experience in Indian Banking Sector

SHORT SYNOPSIS

Submitted in partial fulfillment of the requirement of the degree of

DOCTOR OF PHILOSOPHY

by

Damanpreet Kaur
Registration No. MRUMCDN012K220067

Under the supervision of

Dr. Shweta Goel
Associate Professor, Department of Business

Department of Business
School of Business

MANAV RACHNA UNIVERSITY
Declared as State Private University vide Haryana Act 26 of 2014

MANAV RACHNA UNIVERSITY

Year2025

Scanned with CamScanner

MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

MANAV RACHNA UNIVERSITY

Date: 22/12/25

DECLARATION BY THE SCHOLAR

I hereby declare that the short synopsis entitled **Role of Artificial Intelligence to transformcustomer experienceIndian Banking Sector** being submitted in partial fulfillment of the requirement for the degree of Doctor of Philosophy in the **Department ofBusiness**under the **School of Business**of ManavRachnaUniversity, Faridabad during the academic year **2025 - 2026.**

It is the work that is expected to be carried out under the supervision of **Dr. Shweta Goel.**

Further, it is declared that the short synopsis is within the plagiarism limit and copy of the same is attached as per the University norms.

Damanpreet

Ms. Damanpreet Kaur

Registration Number MRUMCDN012K220067

Scanned with CamScanner

MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

MANAV RACHNA UNIVERSITY

Date: 22/12/25

CERTIFICATE BY SUPERVISOR

This is to certify that, the short synopsis entitled **Role of Artificial Intelligence to transform customer experience Indian Banking Sector**is anoriginal piece of work done by research scholar**Ms.Damanpreet Kaur**under the supervision of **Dr. Shweta Goel**for the degree of Doctor of Philosophy in the **Department of Business**under the **School ofBusiness**of Manav Rachna University, Faridabad during the academic year**2025 - 2026**.

Further, it is certified that the short synopsis is within the plagiarism limit and copy of the same is attached as per the University norms.

22/12/2025

Signature of the Supervisor
Dr. Shweta Goel
Associate Professor,
Department of Business
Manav Rachna University
Faridabad

Scanned with CamScanner

ABSTRACT

One of the most revolutionary change in the Banking industry has been on account of the emergence of Artificial intelligence (AI). AI has altered the concept of operation performance and consumer relations in the banking sector. The application of artificial intelligence (AI) will enable banks and other financial institutions to provide new products and services, practically resolve disruptions in the customer experience and simplify the work processes. In the present dynamic environment, banks are threatened by fintech companies which are operating under the new technologies and replacing human labour with intelligent algorithms or even completely replacing it. To fight this threat, Banks and other financial organisations need to embrace AI and incorporate it in their business and operations. It is the need of the hour. AI has facilitated the turnaround of customer experience by automating, personalising and improved service delivery as banking sector has begun to adopt digital transformation initiatives more and more.

The paper discusses how the level of customer interaction and customer satisfaction can be improved with the help of AI- based solutions through chatbots, virtual assistants, biometric security, robo-advisors, and fraud detection systems. In addition, the focus is to assess the opinions, advantages, and disadvantages of AI implementation in the financial services. The objective is not only to gather in-depth understanding and information about banking employees and customers but also raise issues with regard to data privacy, credibility, and actuality of human connection. This study explains why and how banks should capitalize on AI to create a long-term bond with their clients to remain competitive in a fast-evolving digital economy.

Key words: Artificial Intelligence (AI), Customer Satisfaction, Quality of Service, Digital Literacy, Chatbots, Robo Advisors

TABLE OF CONTENTS

S. No.	Description	Page No.
	Cover Page	i
	Declaration by Scholar	ii
	Certificate by Supervisor	iii
	Abstract	iv
	Table of Contents	v
1	Introduction	1-5
2	Literature Review	6-10
3	Description of Broad Area	11-12
4	Objectives of Research	12
5	Hypotheses of the Study	12-13
6	Research Model	13
7	Research Design and Methodology	14-15
8	Expected outcome of the Research	16
9	Limitations of the Research	17
10	References (Harvard Style/APA/MLA)	18-21
11	Similarity Verification Report	

INTRODUCTION

Artificial Intelligence (AI) refers to the establishment of network systems where the objective is completing tasks which are performed by human beings. Some of the common yet important methods that are used in the creation of artificial intelligence are robotics, machine leaning, computer vision, and natural language processing. One of important areas of Artificial Intelligence (AI) is to analyse large data to detect patterns and make productive decisions based on the gathered information. In this whole gambit AI is able to learn, reason, comprehend what it watches and hears, solve problems, process data, and interpret language among others. Artificial Intelligence (AI) is focused on creating systems which are designed to perform skills and conduct various human actions efficiently and effectively thereby enabling and transforming our lives in many aspects.

As the world today is laden with data and material, human beings cannot possibly grasp, comprehend, process, and take effective decisions. Human beings are required to acquire cognitive skills to process and understand these complex decisions. Repetitive learning is another important feature that AI computers have but humans do not. Repeated tasks have been found to be extremely monotonous by humans. Another thing that humans are lacking is accuracy. The tasks that machines execute are incredibly accurate. Additionally, machines can take risks in place of people.

Artificial intelligence (AI) is acquiring a status in the banking sector for providing a satisfying platform to customers, enhancing fraud detection, and financial management. Companies that offer banking services have undertaken digital transformation as a priority to retain their competitive advantage, and offer efficient services and enhance customer relations. No doubt that banks and financial companies provide internet services but its artificial intelligence that makes automation, enhanced decision-making, responses to customer queries with limited resources. Furthermore, AI has also created and developed the risk management process by managing, identifying and controlling money laundering and fraud in a time bound manner. Artificial intelligence can be applied in the banking industry to improve, facilitate and manage its functionality and efficacy. The use and applications of artificial intelligence is not just restricted to retail banking but also to enhance communication and general experience of the customers by having constant and consistent interactions.

Usage of Artificial Intelligence is seen in many industries and in financial sector it is utilized in almost all areas including the front, back and middle offices of banking. One of the main problems was the rural population which majorly relied on money lenders to provide them with financial services. It was due to this, the government suggested coming up with the nationalization of all large privately owned banks. The Reserve Bank of India was nationalized in the year 1949. The benefit of this was also experienced in the rural and agricultural economy triggering the growth of job openings and boosting the economy.

Demonetization led to adoption of online banking. This enhanced the need for the functionality of the internal procedures and heightened efficiency in handling customers. One of the major problems posed by the banking industry was poor accuracy and reliability of the data along with insufficient segmentation of the clients. The traditional structure was increasingly becoming outdated due to the advent of payment systems that are technology innovative like Unified Payment Interface (UPI), Digital Wallets, Airtel Payments Bank, Paytm Payments Bank etc. which facilitate real-time transactions.

AI can be defined as a machine that not only understands and perceives its surroundings, butalso composes and evaluates the information, acts on the information, and constantly enhances the performance by gaining knowledge on the mistakes.

Artificial intelligence (AI) has caused a paradigm shift in the banking industry. To survive this challenge, the banks have adapted to this change to broaden their business and provide diversity in the new products and increase efficient services to their customers. Additionally, banks are also applying AI to modernize the different aspects of the business that include accounting, contracts, sales, and cybersecurity. Blockchain, machine learning, and data analytics are being used to future-proof the new products and services. AI is also being used for fraud detection, monitoring customer behavior to provide personalized services, enhancing customer satisfaction, evaluating consumer credit history to determine the risk of loan distribution, and so on. Due to the use of AI in the financial sector, banks and other playing financial institutions have become more competitive and efficient.

Utilising artificial intelligence (AI) and its applications by banks in the following domains:

1. Banking Driven by AI is Reinventing the Customer Interface

One of the major factors influencing competition in the industry is customer experience, and AI is revolutionizing these interactions by offering tailored made and continuous round-the-clock service. Employment of Artificial intelligence can help any financial organisations in offering outstanding customer service which in turn will builds confidence, trust, and commitment. Artificial intelligence (AI)-powered technologies are radically altering consumer connections with financial institutions by enabling banks to provide more individualised, responsive, and effective services at every touchpoint.

2. AI is helping banks to Innovate and work more efficiently

Banks are utilising AI to expedite processes and develop innovative solutions more efficiently, thereby maintaining a competitive edge in an intensely competitive sector. AI banking technology accelerates the evaluation of large datasets, enabling financial organisations to launch innovative and novel products more quickly. To streamline operational tasks and take advantage of cost cutting AI is being employed by financial institutions. Significant investments made by Goldman Sachs includes investments in fintech businesses to improve its expertise in technology and proficiency in AI banking.

Automation driven by AI has reduced the cost of routine banking operations for institutions by 25–30%. Furthermore, AI cut their document processing time by 60%, according to Citibank, which resulted in significant cost savings.

Biometric AI technologies like Facial recognition and voice interactions demonstrate that AI technologies are transforming the convenience, accessibility, anonymity, and security of banking. An important attribute of artificial intelligence which helps banks to provide 24/7, user friendly, timely, and personalized services to customers queries and offer financial advice to customers is live chats. Chatbots can be used to communicate digitally, which overcomes the impersonal touch of digital banking, and is available 24/7 to respond to any inquiries immediately.

3. AI is helping banks gain a Competitive Advantage

Artificial intelligence (AI) is enabling banks to differentiate themselves in the competitive market by increasing the number of customer services and optimising the operation process, helping the banks to grow and expand. Banks use AI driven knowledge, customised API driven designs to literally differentiate their business and address the rising demands of the tech savvy customer.

AI is applicable to the banking industry that would allow banks to develop a deep understanding of the market and outperform competitors through better digital experiences that can cater to the evolving needs of current clients.

4. AI in Banking to Improve Risk Management and Regulatory Compliance

The Artificial Intelligence is on the verge of revolutionizing both how banks deal with risk management and they stay in line with regulations too. The reform is expected as the banks loose huge amount of cash every year due to financial crimes characterized by money laundering and online fraud. Artificial intelligence will help the banks in efficient assessing, monitoring and immediate response to risk depending on both national as well as international standards. This will support in automating regulatory processes unique to financial system and without compromising the credibility.

By integrating AI with risk assessment, banks can use data-oriented information to identify and forecast new risks. The predictive analysis is an example of AI that can deliver more value, precision, agile and holistic evaluations.

5. AI- driven Solutions for Enhancing Investment and Wealth Management

The Artificial Intelligence solutions used in personal finance are changing the way people manage their finances by providing personalized financial advice and automated investment management plans depending on their circumstances.

- Behavioural Analysis: AI systems observe financial behaviours and expenditures and offer tailor-made guidance.
- Risk Profiling: Risk tolerance is tested using advanced machine learning models using both conventional surveys and behavioural data.
- Goal-Based Planning: Using AI programs, financial plans are created and optimized based on life events and changing goals.

In a quest to reshape its operations, the banking industry is promptly embracing new AI tools to investors and AI banking technology. These innovative solutions can help banks enhance security, streamline and tailor consumer experience with business objectives, invest in technology and talent through comprehensive AI training programs, and become customer-centric by banks.

LITERATURE REVIEW

Harshvardhan Rajesh, Akolkar (2024) outlined how now the banking industry is undergoing a significant shift due to the technology advances and necessity of technical innovations. Banking clients are adopting artificial intelligence (AI) digital interaction technologies to enhance customer service due their ability to provide an efficient service, tailor the experience to the customer, minimize the steps, and provide seamless omnichannel functionality.

Alzoubi, H. M., and G. Ahmed (2024) define Artificial Intelligence as the power of understanding and analysing data effectively and giving realistic results that are in touch with the reality to achieve the goals with more precision. The article exhibits how the banking sector is striving to harness the artificial intelligence technology and expanding client relations, proving the worth of the venture in the continuous digitization of the banks.
Business companies need to adapt fast to this environment, either by dealing with suppliers or by serving the needs of customers since the global competition in the banking industry has intensified by the use of modernized ways and by the effort to keep abreast with the rapid pace of development. It has been applied in AI to enhance communication between the supplier and customers making reference to smart devices or apps that implement the technology in order to reduce prices and increases customer satisfaction. To make clients more satisfied and efficient in-service delivery e.g. the employees utilize intelligent devices such as chat bots.

The study by Ni, Y. (2024) provides valuable knowledge when it comes to applying explainable AI apps to the banking industry and enhancing the experiences of its clients and establishing relationships with them.

Deepthi et al. (2022) analyze the dynamics of AI-driven technologies in the Indian banking and financial sector, and also describe the perspectives of the staff members concerning customer satisfaction, AI expertise, and third-party involvement. Based on their findings, in spite of the fact that the AI technologies significantly increase the customer service efficiency and customer satisfaction, the gap between the staff acceptance and AI awareness is evident, and the comprehensive training and awareness raises should be performed.

Noreen et al. (2023) state that companies in the banking industries can improve the level of customer service and the measure of performance in the banking sector through the application of suitable forms of artificial intelligence.

Noreen et al. (2023) highlighted one of the most important variables influencing customers' inclinations to adopt AI banking is their level of knowledge about artificial technology.

C. Vijai (2019) study reported that industries which are first to embrace artificial intelligence (AI) includes banking industry, and like other industries, there are several areas in artificial intelligence wherein banks are exploring and utilising the technology. To curate personalise experiences for customers AI is a preferred technology of choice for companies all over the world. As the AI market is booming at an unprecedent pacemore and more sectors are adopting AI for a variety of purposes.

The dual aspect of AI in banking is highlighted in the key findings of the study. On aspect is how artificial intelligence (AI) has emerged as a key element of technological advancement, fostering efficiency and personalised experiences for customers. The other factor is that technology also entails a complex network of security and legal issues that should be closely monitored and supported by ethical codes. The study is recommending a well-balanced practice towards the adoption of artificial intelligence in order to succeed in managing the imminent financial outlook that is straining on continuous progress and ethical issues (Oyeniyi, Lawerence Damilare, Chinonye Esther Ugochukwu, and NoluthandoZamanjomane Mhlongo, 2024)

Salem, M. (2024) the paper can be useful to understand the peculiarities and possibilities of the chatbots application in the industry where customers are highly regulated and oriented. The results show that the implementation of chatbots in the banking sector should be carefully and strategically executed to maximize the potential of this technology to improve the customer experience and reduce the potential negative effects.

Shalet and Thangam (2023) also examine the level of awareness and the perceived impact of AI technology on bank workers in Kerala, India. Their analysis indicates a paradox within the employee population where it is clear that many still respect the possibility of AI to accelerate the banking processes, but issues regarding the problem of trust in the application of AI are

also present. This gap brings up an important concern regarding banks, which is the necessity to create a team that can be trusted and trained about AI.

To meet the demands of clients and build long-term relationships with the investors, the robo-advisor companies should prioritize enhancing the quality of their services (Ibrahim, Muhammad Azman, et al., 2023). An intuitive and user-friendly interface, active customer support, and openness in communication on data security and investment approaches were found to make a favourable user experience largely dependent.

Gupta et al. (2023) emphasize the essential role of chatbots in the banking customer care system by demonstrating that AI-based chatbots have changed the consumer-customer interaction experience by providing the quick and accurate response to queries. The change in consumer behaviour where accuracy and immediacy have become key factors and the influence of digital era on banking can be found in this technological advancement. The survey indicates that chatbots will save organisations more than $7.3 billion in the near future as it will result in substantial cost savings and efficiency.

Sharan Kumar (2022) concluded that AI can be easily used by anyone based on the survey, and all the knowledge needed to understand how AI is used is available in search engines. AI also simplifies banking operations. It helps to reduce errors as compared to manual transactions. It offers a short overview of all banking-related transactions. As chatbots can respond to any inquiry without the customer having to visit the bank, artificial intelligence (AI) reduces effort and saves customers' time. Consequently, it shows that AI offers clients an experience that meets their expectations. By giving customers information about the inquiries, chatbots expedite transactions and save customers’ time.

A. Folstad and M. Skjuve (2019) highlighted that users' expectations of chatbots for customer support may be reasonable. Users may have reasonable expectations about what chatbots for customer service can do, in contrast to earlier research on voice-based conversational agents. They anticipate that these chatbots will respond to basic questions, but they are also aware that more complicated problems could require a human agent to address or clarify.

Bhattacharya, C. & Sinha, M. (2022) reveal to draw clients, developing Indian banks should concentrate on the most well-liked use cases based on the whole picture of AI integration with

banking operations. Comparative analysis of features developed for various banks may reveal opportunities for expansion in the digital banking sector. Established Indian banks may leverage chatbot use cases to further enhance their commercial growth. The level of information about the technology is a crucial component affecting customers' intentions to adopt AI banking.

Investigating how client pleasure and the intention to keep using e-banking services are linked to the quality of AI chatbots, Dantsoho, Mohammed Aliyu; Ringim, Kabiru Jinjiri; Kura, Kabiru Maitama (2021)

Kamboj, Bhatia & Bali (2022) has detailed how in many various ways banking greatly helps the Indian economy grow. This paper intends to quantify the perceived and expected service quality in a subset of public and private sector banks using the SERVQUAL technique and find service quality gaps. Based on primary data gathered via questionnaires, the study shows that, from empathy to responsiveness, certainty, dependability, and tangibility, the dimension with the largest discrepancy is the empathy one.

Malusare, Lalita. (2023) highlights that the banking industry can benefit greatly from artificial intelligence. The findings of the study show that by incorporating artificial intelligence in banking and financial services needs of client are being met effectively. The contemporary customers of banking and financial services are knowledgeable and well-versed in artificial intelligence and its applications. Chatbots, KYC/AML, and security compliance are among the most frequently utilized technologies. AI has enabled efficient and timely communication to consumer enquiries, thereby ensuring customer satisfaction. This is further proof of the transformational shift. The study also highlighted the various security concerns and challenges encountered by banks. Efficient and timely response to customer queries leading to increased customer satisfaction has been made possible by artificial intelligence. And this is the evidence of a revolutionary technology shift. Yet, there are many challenges faced by the banks w.r.t the safety concerns which have been highlighted in the analysis.

DESCRIPTION OF BROAD AREA

In today's workplace and fiercely competitive market, customer satisfaction is an integral component. Digital engagement has become the most critical aspect and common tool to connect, improve, share, engage, and develop relationships with customers. As a result, traditional banking is paving way for technology-driven banking including digital and social media channels, mobile applications, digital wallets, and much more. (Akolkar, Harshvardhan Rajesh, 2024)

To perform operational activities, day to day task and routines, Artificial intelligence is no doubt has a significant impact on transforming the ways banks perform their business and deal with their clients. Various studies show that in the banking industry there is a widespread increase in the use of artificial intelligence (AI) applications, such as chatbots, automated support services, data-based suggestions, and scams detection systems as the population in India has different needs and expectations and is heterogenous. And, above all, the customer is experiencing new and meaningful ways besides enhancing efficiency.

This study will focus on how artificial intelligence (AI) will affect customer satisfaction in the banking sector in India. Some of the questions addressed in it include: Do consumers choose faster, AI-powered services? Do they believe in such systems? What is the performance of the private and the public banks with regard to the use of AI to meet demands of the clients? In the nexus of technology, customer service, and financial innovation, the research offers information on how financial institutions can use AI to enhance their interactions with clients as well as lower expenses.

Research Gaps

- Insufficient studies evaluating the impact of AI on service quality and customer satisfaction in Indian banking sector.
- Few research has examined the relationship between AI implementation and customer satisfaction outcomes in nationalized versus private banks.
- Lack of detailed research on Digital Literacy levels of customers and its effect on AI.
- Insufficient research on customer trust in AI driven banking services and concerns about cybersecurity and data privacy.

OBJECTIVES

1. To identify various AI applications used in the nationalized and private sector banks.
2. To evaluate the impact of AI applications on customer satisfaction in the banking sector.
3. To study the mediating effect of service quality on the relationship between AI applications and customer satisfaction in the banking sector.
4. To analyse the moderating effect of digital literacy on relationship between AI application and customer satisfaction in the banking sector.

HYPOTHESIS

The hypotheses that were established to evaluate the research objectives are as follows:

- **Objective 2: To evaluate the impact of AI applications on customer satisfaction in banking sector**

Four hypotheses are established to evaluate the above-mentioned objective

H1: There is significant impact of Smart wallet on customer satisfaction in banking sector

H2: There is significant impact of Chatbots on customer satisfaction in banking sector

H3: There is significant impact of Biometric Security on customer satisfaction in banking sector

H4: There is significant impact of Robo Advisors on customer satisfaction in banking sector

- **Objective 3: To understand the impact of service quality on customer satisfaction**

H0: There is no significant relationship between service quality and customer satisfaction

H1: There is a significant relationship between service quality and customer satisfaction

- **Objective 3: To study the mediating effect of service quality on the relationship between AI applications and customer satisfaction**

H0: Service quality does not mediate the effect of AI applications on customer satisfaction

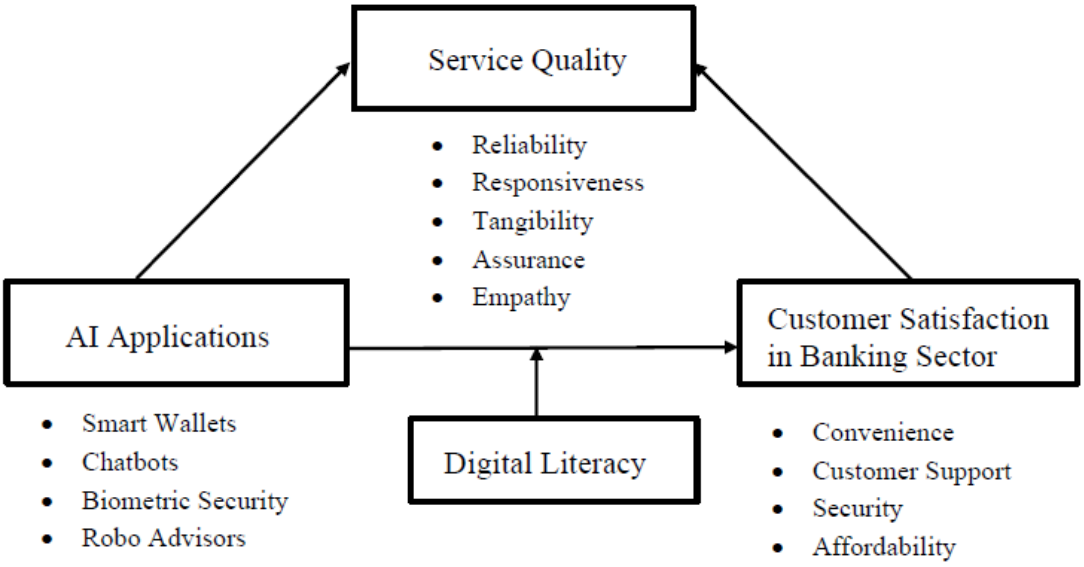
H1: Service quality does mediate the effect of AI applications on customer satisfaction

- **Objective 4: To assess the moderating impact of digital literacy on relationship between AI applications and customer satisfaction**

H0: Digital literacy does not moderate the impact of AI applications on customer satisfaction in banking sector

H1: Digital literacy moderates the impact of AI applications on customer satisfaction in banking sector

RESEARCH MODEL



RESEARCH DESIGN AND METHODOLGY

- **Data Collection:**

  The study will be carried out with the help of a well-structured questionnaire as a collection of primary data. Multiple choices and Likert scale questions will be prepared to study the impact. Secondary data will be collected through articles, journals, research papers, e-magazines, and websites.

- **Sampling Technique: Convenience Sampling Technique** will be adopted to collect data from the respondents for the purpose of the study.
- **Sampling Frame:** The respondents will be customers of different banks, and age groups from Delhi NCR.
- **Sample Size:** The determination of sample size can vary based on resources from 300-500 respondents. The required sample size was calculated using the standard formula
  $n= [Z^2.p. (1-p)]/ E^2$ for an unknown population with a 95% confidence level and a 5% margin of error, resulting in minimum of 385 participants.

$$n = [1.96^2 .0.5 . 0.5]/ 0.05^2 = 0.9604/0.0025 = 384.16$$

- **Research Variables:**

  Independent Variables: Smart Wallets, Chatbots, Biometric Security, Robo Advisors
  Dependent Variables: Convenience, Customer Support, Security, Affordability
  Mediating Variable: Service Quality
  Moderating Variable: Digital Literacy

- **Research Design:** The research design is exploratory and descriptive in nature, to complete the study information will be gathered from the primary and secondary data, which will be both qualitative and quantitative.

- **SERVQUAL Model** will be used to measure the service quality developed by Parasuraman et al. in 1985 and 1988. Tangibles, dependability, responsiveness, competency, courtesy, certainty, credibility, security, accessibility, and comprehension were among the qualities listed by Parasuraman et al. (1985). Later, these elements were combined to form the SERVQUAL model, which currently addresses five elements: responsiveness, tangibles, empathy, assurance, and reliability. Thus, the RATER model is another name for it.

1. Tangible: The physical components of the service environment that influence client perceptions include well-maintained waiting spaces, easily readable bank statements, furniture, and streamlined procedures using modern technology.
2. Reliability: Customer satisfaction and trust are guaranteed when promised services are consistently and reliably delivered.
3. Responsiveness: Employees' thorough service delivery, quick error correction, and attentive problem-solving. how quickly and efficiently service providers respond to enquiries and requests from clients.
4. Assurances: The ability of a service provider to instill trust in clients is crucial for retaining their loyalty in the face of competition. Competitive lending rates, interest rates on savings and time deposits, a secure transaction environment, and amiable staff are all included.
5. Empathy: Employees seek solution and it is necessary to understand the requirements and perspectives of the clients as the true empathy.

- The statistical software to be used in **Quantitative analysis of data** will be Statistical Package of Social Sciences (SPSS) and Structural Equation Model (SEM)**.** The effect of the variables will be examined and summarized using descriptive statistics.

EXPECTED OUTCOME

1. **Understanding the Impact of AI on Customer Satisfaction:**

   The goal of the research is to clarify how AI technologies (chatbots, virtual assistants, automated customer service, and data-driven personalization) influence various aspects of consumer satisfaction, such as responsiveness, convenience, trust, and the quality of the service.

2. **Identification of Key AI Features that Drive Satisfaction:**

   This study identifies specific AI applications like 24/7 support, fraud alerts, making recommendations that contribute to customer experiences most effectively in banks in India.

   .

3. **Comparison Between Public and Private Sector Banks**

   It is anticipated that the research will provide insights on the differences in the adoption and customer satisfaction results of AI by the banks in the public and the private sectors, highlighting the strengths and the weaknesses of every organization in its use of AI.

4. **Insights into Customer Perceptions and Trust in AI**

   The research aims to employ the observations of the qualitative dimension (the elements that cannot be demonstrated only in the case of surveys) to explain how consumers feel trusted or anxious or opposed to AI-powered financial services.

5. **Contribution to Academic and Industry Knowledge**

   The research will add to the body of knowledge in the spheres of artificial intelligence, service management, and customer experience in the new markets, and potentially provide information applicable to the general FinTech and digital banking industries.

LIMITATIONS OF THE STUDY

1. **Scope of AI Technologies Addressed:**
   The research may simply concentrate on a limited number of AI tools commonly applied in Indian banking, such as chatbots, robo advisors, and fraud detection. It might not record all innovative AI-based technologies or potential developments that might arise in the course or even after the study.
2. **Demographic and Geographical Restrictions:**
   The limited time and budget might restrict the research to such areas as metropolitan ones, which will potentially exclude the client viewpoints in rural or underbanked regions. This may have an impact on the appropriateness of the findings to the varied Indian population.

3. **The Transforming Nature of Banking Technology and AI:**
   Due to the rapid development of AI technologies, the result might be considered to be partially obsolete in case some new tools and platforms are launched. This complicates consideration of long-term effects and expectations of clients in the future.

4. **Variation Across Banks:**
   There may not be easily available matching results that can be used across the entire industry due to overall implementation of AI programs, customer service strategies, and the level of digital maturity of the banks (particularly the public and the private banks).

5. **Consumer Knowledge and Awareness of AI:**
   Possibly, there will be a significant number of consumers that cannot tell the difference between AI-based and traditional digital services. They may also be commenting on wider digital life experiences instead of interacting with AI, and this may make the focus of the research less apparent.

REFERENCES

1. Achary, R. (n.d.-a). Artificial Intelligence Transforming Indian Banking Sector. http://www.iaras.org/iaras/journals/ijems
2. Akshata, M., & Ranavade, A. (2019). Issue 4 www.jetir.org (ISSN-2349-5162). In JETIRBH06034 Journal of Emerging Technologies and Innovative Research (Vol. 6). https://rbi.org.in/scripts/PublicationReportDetails.aspx?ID=892#3.2
3. Al-Araj, R., Haddad, H., Shehadeh, M., Hasan, E., & Nawaiseh, M. Y. (2022). The Effect of Artificial Intelligence on Service Quality and Customer Satisfaction in Jordanian Banking Sector. WSEAS Transactions on Business and Economics, 19, 1929–1947. https://doi.org/10.37394/23207.2022.19.173
4. Assistant Professor, M. (2018). Service Quality in Indian Banking Industry-A Study. 6(3), 361. www.ijcrt.org
5. Bhattacharya, C., & Sinha, M. (2022a). Bhattacharya and Sinha: Role of Artificial Intelligence in Banking for Leveraging 89. In AABFJ (Vol. 16).
6. Bm Volume V | Issue, J., & December, I. |. (2018a). Digital Financial Literacy: A Study of Households of Udaipur. In The Journal of Business and Management (Vol. 23).
7. Davisk, J., & Thilagaraj, A. (n.d.). THE EVOLVING ROLE OF AI IN BANKING SECTIOR-AN INDIAN PERSPECTIVE. https://doi.org/10.17605/OSF.IO/GRJFM
8. Følstad, A., & Skjuve, M. (2019, August 22). Chatbots for customer service: User experience and motivation. ACM International Conference Proceeding Series. https://doi.org/10.1145/3342775.3342784
9. Ghane, M., Shahmoradi, N., & Moein, M. (2019). Survey of Financial Literacy of Bank Customers on the Use of Electronic Banking and Reducing of Traffic Accidents. Journal of Community Health Research. https://doi.org/10.18502/jchr.v8i1.561
10. Ibrahim, M. A., Adlin, R., Ruslan, M., Abdullah, M. F., & Ahmad, A. H. (2023). Navigating the Future: Exploring the Nexus between Robo-Advisor Service Quality and Customer Satisfaction. In Information Management and Business Review (Vol. 15, Issue 3).
11. Jadeja, F., & Shinde, P. (2024). Application Of SERVQUAL Model To Measure The Customer Satisfaction: A Study of Selected Commercial Banks (Vol. 12). www.ijcrt.org
12. Kamboj, J. (2022a). SERVICE QUALITY IN BANKS: AN ANALYSIS. www.ijcrt.org
13. KAUR, N., SAHDEV, S. L., SHARMA, M., & SIDDIQUI, L. (2020). BANKING 4.0: "THE INFLUENCE OF ARTIFICIAL INTELLIGENCE ON THE BANKING INDUSTRY & HOW

AI IS CHANGING THE FACE OF MODERN DAY BANKS." INTERNATIONAL JOURNAL OF MANAGEMENT, 11(6). https://doi.org/10.34218/ijm.11.6.2020.049

14. Kaur, R., Dharmadhikari, S. P., & Khurjekar, S. (2024a). Assessing the customer adoption and perceptions for AI-driven sustainable initiatives in Indian banking sector. Environment and Social Psychology, 9(5). https://doi.org/10.54517/esp.v9i5.1934
15. Kochhar, K., Purohit, H., & Chutani, R. (n.d.). THE 5 TH INTERNATIONAL CONFERENCE ON EDUCATIONAL RESEARCH AND PRACTICE (ICERP) 2019 EDUCATING THE DIGITAL SOCIETY: INTEGRATING HUMANISTIC AND SCIENTIFIC VALUES The Rise of Artificial Intelligence in Banking Sector.
16. Krahnhof, P., & Au, C.-D. (2020). The Role of Robo-Advisors in the German Banking Market-Critical Analysis on Human versus Digital Advisory Services. https://www.researchgate.net/publication/342549761
17. Kumar, J., & Gupta, Dr. S. sen. (2023). Impact of Artificial Intelligence towards customer relationship in Indian banking industry. Gyan Management Journal, 17(1), 105–115. https://doi.org/10.48165/gmj.2022.17.1.12
18. Kumar, S. (n.d.). Applications of Artificial Intelligence on Customer Experience and Service Quality of the Banking Sector. https://www.researchgate.net/publication/351411351
19. Kumar SHETTY Manel Srinivas, S., Spulbar, C., Birau, R., & Dorin FILIP, R. (n.d.). Impact of Artificial Intelligence in Banking Sector with Reference to Private Banks in India.
20. Lecturer, A. H. G. (n.d.). The Study on Role of Artificial Intelligence in Micro-Financing, Banking and Financial Inclusion Introduction.
21. Lecturer, G., & Biswas, B. (n.d.). Ensuring Customer Satisfaction in Banking Sector through Service Quality-A Study with Reference to Select Branches of State Bank of India Sangita Maji.
22. Malali, A. B., & Gopalakrishnan, S. (2020a). Application of Artificial Intelligence and Its Powered Technologies in the Indian Banking and Financial Industry: An Overview. IOSR Journal of Humanities and Social Science (IOSR-JHSS, 25(6), 55–60. https://doi.org/10.9790/0837-2504065560
23. Malusare, L. B. (2023). A study of Artificial intelligent in banking sector: A study of Customer and Bank Employee perception toward AI based banking services. In © 2023 IJRTI | (Vol. 8). www.ijrti.org
24. Mhlanga, D. (2020). Industry 4.0 in finance: the impact of artificial intelligence (ai) on digital financial inclusion. International Journal of Financial Studies, 8(3), 1–14. https://doi.org/10.3390/ijfs8030045

25. Mulyono. (2023). The Impact of Digital Literacy on Fintech Service Usage Through Financial Literacy. E3S Web of Conferences, 426. https://doi.org/10.1051/e3sconf/202342602003
26. Noreen, U., Shafique, A., Ahmed, Z., & Ashfaq, M. (2023). Banking 4.0: Artificial Intelligence (AI) in Banking Industry & Consumer's Perspective. Sustainability (Switzerland), 15(4). https://doi.org/10.3390/su15043682
27. Orçun Kaya, A., Jan Schildbach, E., & Research Management Stefan Schneider, D. (2019). EU Monitor Global financial markets Artificial intelligence in banking. www.dbresearch.com
28. Pathak, N., & Singh, T. (2020). JOURNAL OF CRITICAL REVIEWS EMERGING ROLE OF ARTIFICIAL INTELLIGENCE IN INDIAN BANKING SECTOR. In Article in Journal of Critical Reviews. https://www.researchgate.net/publication/343335662
29. Phan, T. C., Minh, T. le, Nguyen, T. T., & Phan, H. T. (2023). Digital Financial Literacy and Mobile Banking Behavior: Empirical Evidence from an Emerging Market (pp. 164–178). https://doi.org/10.2991/978-94-6463-348-1_15
30. Rompho, N. (2014). Factors Affecting Customer Satisfaction in Online Banking Service. https://www.researchgate.net/publication/267392699
31. Rossi, A. G., & Utkus, S. (n.d.). The Needs and Wants in Financial Advice: Human versus Robo-advising. https://ssrn.com/abstract=3759041
32. Samsudeen, S. N., Fathima Sanjeetha, M. B., Thowfeek, M. H., Sabraz Nawaz, S., Buhary, M., & Sanjeetha, F. (2017). Drivers of Artificial Intelligence in Banking Service Sectors View Project E-Learning View project Drivers of Artificial Intelligence in Banking Service Sectors. www.solidstatetechnology.us
33. Satheesh, M. K., & Nagaraj, S. (n.d.-a). Applications of Artificial Intelligence on Customer Experience and Service Quality of the Banking Sector Background Study. In International Management Review (Vol. 17, Issue 1).
34. Satheesh, M. K., & Nagaraj, S. (n.d.-b). Applications of Artificial Intelligence on Customer Experience and Service Quality of the Banking Sector Background Study. In International Management Review (Vol. 17, Issue 1).
35. Sawant, K., Soni, H., Maharaul, P., & Agarwal, S. (n.d.). KOREA REVIEW OF INTERNATIONAL STUDIES A STUDY OF AI IN BANKING SYSTEM.
36. Shaikh, A. A., Kumar, A., Mishra, A., & Elahi, Y. A. (2024). A study of customer satisfaction in using banking services through Artificial Intelligence (AI) in India. Public Administration and Policy, 27(2), 167–181. https://doi.org/10.1108/PAP-05-2023-0060

37. Shambira, L. (2020). EXPLORING THE ADOPTION OF ARTIFICIAL INTELLIGENCE IN THE ZIMBABWE BANKING SECTOR. European Journal of Social Sciences Studies, 5(6). https://doi.org/10.46827/ejsss.v5i6.942
38. Telukdarie, A., & Mungar, A. (2022). The Impact of Digital Financial Technology on Accelerating Financial Inclusion in Developing Economies. Procedia Computer Science, 217, 670–678. https://doi.org/10.1016/j.procs.2022.12.263
39. THE 5 TH INTERNATIONAL CONFERENCE ON EDUCATIONAL RESEARCH AND PRACTICE (ICERP) 2019 EDUCATING THE DIGITAL SOCIETY: INTEGRATING HUMANISTIC AND SCIENTIFIC VALUES 3111. (n.d.).
40. Umamaheswari, S., Valarmathi, A., & Phil, M. (n.d.-a). Role Of Artificial Intelligence in The Banking Sector Associate professor, Vivekananda institute of management studies Coimbatore M. Raja lakshmi. In Journal of Survey in Fisheries Sciences (Vol. 10, Issue 4S). https://www.pymnts.com
41. Veerla, V. (2021). To Study the Impact of Artificial Intelligence as Predictive Model in Banking Sector: Novel Approach.
42. Vijai, C. (2019). ARTIFICIAL INTELLIGENCE IN INDIAN BANKING SECTOR: CHALLENGES AND OPPORTUNITIES. International Journal of Advanced Research, 7(4), 1581–1587. https://doi.org/10.21474/IJAR01/8

MANAV RACHNA UNIVERSITY

No. MRU/SVLRC/LIB: 22/12/2025

Swami Vivekananda Library and Resource Centre
Manav Rachna University

SIMILARITY VERIFICATION CERTIFICATE

Title: Role of Artificial Intelligence to transform Customer experience in Indian Banking Sector

Researcher: Damanpreet Kaur Registration Number: MRUMCDN012K220067

Supervisor: Dr. Shweta Goel Department: School of Business

This is to certify that the above mentioned Short Synopsis/Thesis was scanned for similarity index through DrillBit Software on 9/12/25 with submission ID 4849062 and the similarity index was found to be 5%. The complete report running into 22 Pages, 5823 Word count with File Size 1282 KB is being forwarded to the Research Supervisor/DRC/DRB for review.

The complete report of the above Short Synopsis/Thesis has been reviewed and the similarity index including AI-based writing tools are below the accepted norms as per the University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations 2018. The Short Synopsis/Thesis may be considered for further processing.

Damanpreet 22/12/25
Research Scholar

Swami Vivekananda Library and Resource Centre, Faridabad * Manav Rachna University * 22/12/2025

Excluding matches
less than 14 words

22/12/25
Research Supervisor

Scanned with CamScanner

Excluding matches less than 14 words

Swami Vivekananda Library and Resource Centre, Faridabad
Manav Rachna University
22/12/25

DrillBit

Damanpreet 22/12/25

22/12/25

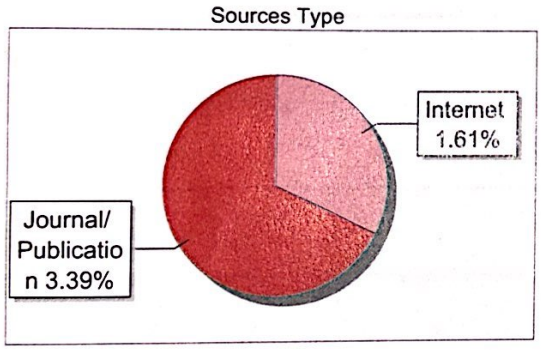
The Report is Generated by DrillBit Plagiarism Detection Software

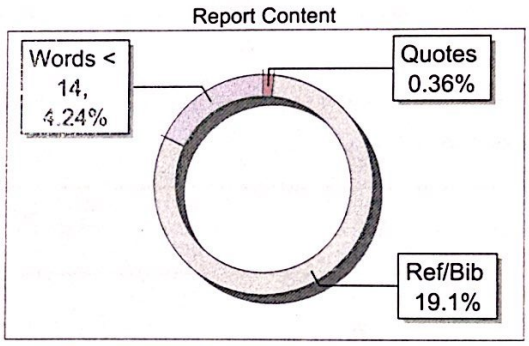
Submission Information

Author Name	Damanpreet Kaur
Title	Role of Artificial Intelligence to transform customer experience in Indian Banking Sector
Paper/Submission ID	4849062
Submitted by	netrapal.library@mru.edu.in
Submission Date	2025-12-09 10:41:39
Total Pages, Total Words	22, 5823
Document type	Synopsis

Result Information

Similarity **5 %**





Exclude Information

Quotes	Excluded
References/Bibliography	Excluded
Source: Excluded < 14 Words	Excluded
Excluded Source	**0 %**
Excluded Phrases	Not Excluded

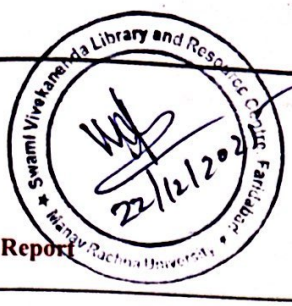
Database Selection

Language	English
Student Papers	Yes
Journals & publishers	Yes
Internet or Web	Yes
Institution Repository	Yes

A Unique QR Code use to View/Download/Share Pdf File

Scanned with CamScanner

Excluding matches
less than 14 words



DrillBit

DrillBit Similarity Report

Dawanpreet 22/12/25

22/12/25

5	10	A
SIMILARITY %	MATCHED SOURCES	GRADE

A-Satisfactory (0-10%)
B-Upgrade (11-40%)
C-Poor (41-60%)
D-Unacceptable (61-100%)

LOCATION	MATCHED DOMAIN	%	SOURCE TYPE
2	www.scirp.org	1	Internet Data
3	ro.uow.edu.au	1	Publication
4	journalsofmgt.com.ng	<1	Publication
6	etd.aau.edu.et	<1	Publication
7	absrc.org	1	Publication
8	copperdigital.com	1	Internet Data
9	eprints.hud.ac.uk	<1	Publication
10	www.adb.org	<1	Publication
11	www.ijrrjournal.com	<1	Publication
13	qdoc.tips	<1	Internet Data

Scanned with CamScanner

Annexure-6

Role of Artificial Intelligence to transform customer experience in Indian Banking Sector

SHORT SYNOPSIS

by

Damanpreet Kaur
Registration No. MRUMCDN012K220067

Under the supervision of

Dr. Shweta Goel
Associate Professor

MANAV RACHNA UNIVERSITY

Year *2025*

ABSTRACT

One of the most revolutionary change in the Banking industry has been on account of the emergence of Artificial intelligence (AI). AI has altered the concept of operation performance and consumer relations in the banking sector. The application of artificial intelligence (AI) will enable banks and other financial institutions to provide new products and services, practically resolve disruptions in the customer experience and simplify the work processes. In the present

Scanned with CamScanner

Match Groups

- 9 Not Cited or Quoted 4%
  Matches with neither in-text citation nor quotation marks
- 1 Missing Quotations 0%
  Matches that are still very similar to source material
- 0 Missing Citation 0%
  Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted 0%
  Matches with in-text citation present, but no quotation marks

Top Sources

2% Internet sources
0% Publications
3% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Student papers British School of Commerce - Colombo	1%
2	Student papers Glenville State College	<1%
3	Student papers egi University College	<1%
4	Internet hodhgangotri.inflibnet.ac.in:8080	<1%
5	Student papers o Chi Minh City University of Foreign Languages and Information Technology	<1%
6	Internet jaets.com	<1%
7	Student papers t. San Jacinto College	<1%
8	Internet mcoralhealth.biomedcentral.com	<1%
9	Internet srjournals.org	<1%

Scanned with CamScanner

Annexure-6

Role of Artificial Intelligence to transform customer experience in Indian Banking Sector

by

Damanpreet Kaur

ABSTRACT

One of the most revolutionary change in the Banking industry has been on account of the emergence of Artificial intelligence (AI). AI has altered the concept of operation performance and consumer relations in the banking sector. The application of artificial intelligence (AI) will enable banks and other financial institutions to provide new products and services, practically resolve disruptions in the customer experience and simplify the work processes. In the present dynamic environment, banks are threatened by fintech companies which are operating under the new technologies and replacing human labour with intelligent algorithms or even completely replacing it. To fight this threat, Banks and other financial organisations need to embrace AI and incorporate it in their business and operations. It is the need of the hour. AI has facilitated the turnaround of customer experience by automating, personalising and improved service delivery as banking sector has begun to adopt digital transformation initiatives more and more.

The paper discusses how the level of customer interaction and customer satisfaction can be improved with the help of AI- based solutions through chatbots, virtual assistants, biometric security, robo-advisors, and fraud detection systems. In addition, the focus is to assess the opinions, advantages, and disadvantages of AI implementation in the financial services. The objective is not only to gather in-depth understanding and information about banking employees and customers but also raise issues with regard to data privacy, credibility, and

Scanned with CamScanner

Swami Vivekananda Library and Resource Centre
Gurukul * Maharaja Ranjit Singh Punjab Technical University *
22/12/25

DrillBit

The Report is Generated by DrillBit AI Content Detection Software

Damanpreet 22/12/25

22/12/25

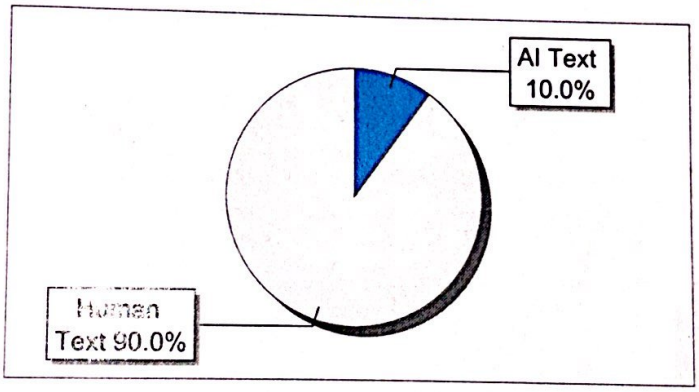
Submission Information

Author Name	Damanpreet Kaur
Title	Role of Artificial Intelligence to transform cu..
Paper/Submission ID	4849062
Submitted By	netrapal.library@mru.edu.in
Submission Date	2025-12-09 10:41:39
Total Pages	22
Document type	Synopsis

Result Information

AI Text: **10 %**

Content Matched



Disclaimer:

* The content detection system employed here is powered by artificial intelligence (AI) technology.
* Its not always accurate and only help to author identify text that might be prepared by a AI tool.
* It is designed to assist in identifying & moderating content that may violate community guidelines/legal regulations, it may not be perfect.

Scanned with CamScanner